

REMARKS

With the present Amendment, claims 1-4, 6-8, 13, and 15-30 have been cancelled and claims 5, 9-12 and 14 have been amended, to place these claims in independent form. Claims 5, 12 and 14 have been further amended to include further limitations. Claims 31-33 have been added. New claim 31 addresses the invention of former claim 8 rewritten in independent form with a different format.

Claims 2 and 16-30 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. With the present Amendment, all of these claims have been cancelled.

Claim 5

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lands (U.S. patent number 6,201,554) in view of Thomas (U.S. patent number 6,567,101) and further in view of Martinez et al. (U.S. patent number 6,137,468, herein after Martinez).

As amended, claim 5 provides a method in a device having a display. The method includes generating at least one sensor signal using at least one sensor in the device. Based on the sensor signal, a tilt context value is generated that indicates how the device is tilted and a flat context value is generated that indicates that the device is lying flat. An orientation for an image on the display is selected by finding a tilt context value that was maintained for longer than a set period of time before the flat context value was generated and before a different tilt context value was maintained for less than the set period of time. Thus, in claim 5, a tilt context value was maintained for longer than a set period of time followed by a different tilt context value that was maintained for less than the set period of time, followed by the flat context value.

As amended, claim 5 is not shown or suggested in the cited art. In particular, none of the references show a step of selecting an orientation based on a tilt context value that is maintained for more than a set period of time instead of a later tilt context value that is maintained for less than the set period of time. In each of the cited references that change the orientation of a display based on tilting of the device, the orientation is based on the last tilt context value that is received, regardless of the period of time that the context value is held.

Note that none of the cited references address the problem solved by claim 5. In particular, as a device is placed on flat surface, it generates a number of different tilt context values. By requiring a tilt context value to be maintained for more than a set period of time, the present invention prevents the orientation from changing arbitrarily as the device is placed down on the surface. Thus, claim 5 allows the orientation of the display to switch based on tilt angle while at the same time maintaining a stable orientation when the device is laid flat on a surface. None of the cited references show or suggest the need for this invention and none of the references show or suggest the solution provided by claim 5.

Since none of the cited references show or suggest the invention of claim 5, claim 5 is patentable over Lands, Thomas, and Martinez.

Claim 9

Claim 9 provides a method in which at least one sensor signal is generated using at least one sensor in a device. A tilt context value is also generated that indicates how the device is tilted based on at least one sensor signal. The orientation of an image on the display is changed based on the tilt context value unless the tilt context value is being used to control scrolling of an image on the display.

In the Office Action, claim 9 was rejected under 35 U.S.C. § 103 as being unpatentable over Lands in view of Thomas.

Although Thomas shows both scrolling and orientation changes based on tilting of a device, neither Thomas nor Lands shows or suggests that a tilt context value should not be used to change the orientation of an image if it is currently being used to control scrolling of an image on the display. Thomas in particular does not indicate how or if orientation switching can be integrated with tilt scrolling.

Lands and Thomas also do not suggest the problem solved by claim 9. The invention of claim 9 prevents the display orientation from switching during scrolling while allowing the orientation to switch if the display is not scrolling. This is done under the present invention because changing the orientation can cause a delay in the re-drawing of the display. Such a delay is undesirable during scrolling. By preventing such orientation redraws, the present invention provides a more stable appearance to the user interface during scrolling while allowing the orientation to be switched based on tilting when the scrolling is not activated. Neither Thomas nor Lands discuss the problem of delayed redraws or the desirability of suspending orientation switching during scrolling.

Since neither Thomas nor Lands show or suggest that an orientation should be changed based on a tilt context value unless the tilt context value is being used for scrolling, and neither references shows or suggests the desirability of such behavior in a device, the combination of Thomas and Lands does not show or suggest the invention of claim 9.

Claim 10

Claim 10 had depended from claim 1. With the present Amendment, claim 10 has been written in independent form.

Under claim 10, a method in a device having display includes generating at least one sensor signal using at least one

sensor in the device. A holding context value and an orientation context value are generated based on the at least one sensor signal. The holding context value indicates that the user is holding the device and the orientation context value indicates that the device is in an orientation consistent with the user wanting to use the device. Based on the holding context value and the orientation context value, the device is placed in a full power mode.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lands and Thomas in view of Park (U.S. patent number 5,705,977) and further in view of Nookala et al. (U.S. patent number 5,860,016, hereinafter Nookala). However, none of the cited references show or suggest the invention of claim 10 because none of the cited references show or suggest using an orientation context value to control a power mode on a device.

In particular, Park and Nookala do not show or suggest using the orientation of a device to control the power mode of the device. In Park, contact is all that is needed to change the power mode of the device. In particular, contact is used to control the illumination of buttons on the device. Orientation is never discussed in Park.

Similarly, Nookala places the device in full power mode when a key is pressed on the device. There is no suggestion that orientation could be used to change the power mode of the device in Nookala.

Additionally, neither Lands nor Thomas show or suggest that the power mode of the device can be changed based on its orientation.

The cited references also fail to show or suggest the problem solved by claim 10. In particular, by using the orientation of the device to determine when to go into full power mode, the present invention makes it less likely that the device will go into full power mode when it is placed in a briefcase or

purse, where it would come into contact with other objects, and thus be perceived as being handled. None of the cited references show or suggest that a device should be prevented from going into full power mode when it is placed in a briefcase or purse. As such, there is no motivation to add an orientation context value to the determination of when to place the device into full power mode. Note in particular that there is no motivation to add such an orientation device to the TV remote of Park, since TV remotes are generally not placed in briefcases or purses, and thus, the orientation of the remote does not need to be taken into consideration when determining whether to enter full power mode.

Since none of the cited references show or suggest using the orientation of a device to control the full power mode of the device, the combination of cited references does not show or suggest the invention of claim 10.

Claim 11

Claim 11 depended from claim 1, and has been rewritten in independent form with the present Amendment. Under the method of claim 11, at least one sensor signal is generated and is used to generate a holding context value that indicates that the user is holding the device. The device is prevented from entering an idle mode based on the holding context value.

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lands and Thomas in view of Park and Nookala.

In the Office Action, it was asserted that Nookala showed that when a user "will pick up the device" the device "will go into a normal mode." Applicants dispute this assertion.

Nookala makes no reference to a device going into a normal mode based on the device being held by the user. In fact, Nookala indicates that device changes modes based on a user pressing a key and not based on the user holding the device or picking up the device. (Column 5, lines 52-54). In addition, none of Lands, Thomas, and Park show or suggest preventing a device from

entering idle mode when a user is holding the device as indicated by a holding context value. In fact, Park teaches the opposite.

In Park, if the user is contacting the device for more than a set period of time, the device goes into an idle mode, where the lights on the keys turn off. Thus, instead of being prevented from entering the idle mode, Park actually enters the idle mode while the user is holding the device. This is the opposite of the invention of claim 11.

Note that none of the cited references show or suggest the problem addressed by claim 11. In particular, the invention of claim 11 is designed to prevent the system from going into an idle, power saving mode, when the user is holding the device but reading from the display. In many hand-held devices, such as the Nookala device, where the device enters an idle mode when it does not receive input, users can be quite frustrated when they are reading the display and the device enters an idle mode. None of the cited references suggest that the unwanted entering of the idle mode is a problem that needs to be solved. Claim 11 suggests that it can be solved by using a holding context value to prevent the device from entering the idle mode when the device is being held.

Since none of the cited references show or suggest the problem addressed by the invention of claim 11 or the solution provided by claim 11, their combination does not show or suggest the invention of claim 11. As such, claim 11 is patentable over the cited art.

Claim 12

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lands and Thomas in further view of Nookala and Lignoul (U.S. patent number 6,374,145).

As amended, claim 12 is directed to a method in which at least one sensor signal is generated and a sequence of proximity context values are generated based on the sensor

signal. The sequence of proximity context values indicate the movement of an object relative to the device. Under the method, the device is prevented from entering an idle mode when the sequence of proximity context values indicates that an object is moving relative to the device while allowing the object to enter an idle mode when the sequence of proximity context values indicate that an object is present but not moving relative to the device.

As amended, claim 12 is not shown or suggested by the combination of cited references. In particular, none of the references show or suggest that a device should be prevented from entering idle mode when movement is detected while allowing the device to enter idle mode when a proximity context value indicates that an object is present but not moving. In particular, Lignoul does not show or suggest this step.

Under Lignoul, proximity sensors are used to prevent a screen saver from being displayed on the device. The proximity sensors detect the presence of a user and prevent the device from entering the screen saver mode when the user is present. Note that if the user is not moving, the screen saver is still prevented from being executed under Lignoul. This is different than the invention of claim 12, where if an object is present but not moving, the device will still enter the idle mode.

The problem addressed by the invention of claim 12 is not shown or suggested in any of the cited references. In particular, the invention of claim 12 is designed to prevent the device from entering idle mode while the user is gesturing toward the device, as users commonly do when showing an image on the device to another person. To allow the device to enter idle mode when a stationary object is placed on the device, the present invention does not use simple proximity as is used in Lignoul. Instead, it examines movement relative to the device. This allows for the device to enter the idle mode when the device is

covered by a stationary object, while preventing the device from entering the idle mode while the user is gesturing toward the device. None of the cited references suggest the desirability of having a device that does not enter the idle mode while an object is moving relative to the device while still allowing the device to enter the idle mode when objects are present but not moving relative to the device.

Since none of the cited references show or suggest the problem addressed by the invention of claim 12 or the solution provided by claim 12, claim 12 is additionally patentable over the cited references.

Claim 14

Claim 14 as amended represents claim 15 written in independent form. Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lands and Thomas in view of Flack et al. (U. S. patent number 6,288,704 hereinafter Flack).

As amended, claim 14 is directed to a method in which at least one sensor signal is generated and is used to generate a holding context value that indicates that a user is holding the device. An orientation context value is also generated that indicates that the device is in an orientation consistent with the user wanting to use the device. Based on the holding context value and the orientation context value, a sound capturing application is activated.

None of the cited references show or suggest initiating a sound capturing application based on a holding context value and an orientation context value. In particular, Flack does not show or suggest activating a sound capturing application based on such context values. Flack does mention that one application that may be present on a hand-held device may be an application for conversing with others or recording messages. However, it does not suggest that a sound capturing application can or should be activated based on a holding context value and an orientation

context value. Similarly, Lands and Thomas fail to show or suggest activating a sound capturing application based on such context values.

Since none of the cited references show or suggest activating a sound capturing application based on a holding context value and an orientation context value, claim 14 is patentably distinct from the combination of cited references.

Claim 31-33

Claim 31 is a new claim that addresses the invention of former claim 8 rewritten in independent form with a different format.

Claim 31 is directed to a method in which an indication that a user of a device wants to scroll an image on the device is received. Based on this indication, at least one tool bar from the display is removed. The image is then scrolled.

Dependent claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lands and Thomas in view of Bernstein et al. (U.S. patent number 5,761,071, hereinafter Bernstein). The combination of Lands, Thomas and Bernstein does not show or suggest the invention of claim 31. In particular, none of the cited references show or suggest removing a tool bar based on an indication that a user wants to scroll an image on a device.

In particular, Bernstein does not remove a tool bar based on an indication that a user wishes to scroll an image. Instead, Bernstein removes all tool bars on a Netscape window to prevent users from accessing the menus provided by the tool bars. In fact, Bernstein does not remove the tool bars, but simply covers them with other windows. Bernstein does not place the overlapping windows over the tool bars based on an indication that a user wishes to scroll an image, but instead places the windows over the tool bars before making the system accessible to users. This prevents users from accessing the tool bars under any conditions.

Bernstein does not show or suggest the invention of claim 31 or the benefit provided by the invention of claim 31. In particular, by removing the tool bars during scrolling, the present invention provides more screen space for displaying the document being scrolled. This allows the user to see more of the document and thereby control scrolling better. None of the cited references show or suggest that tool bars should be removed during scrolling so that the user can see more of the document being scrolled and thereby control scrolling better. As such, the invention of claim 31 and claims 32 and 33, which depend therefrom, are patentable over the cited references.

Conclusion

Based on the above remarks, claims 5, 9-12, 14, and 31-33 are patentable over the cited art. Reconsideration of the claims is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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